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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,075	02/26/2002	Kojiro Hamabe	Q68676	2315

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EXAMINER

AMINZAY, SHAIMA Q

ART UNIT	PAPER NUMBER
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2684

DATE MAILED: 07/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/082,075

Applicant(s)

HAMABE, KOJIRO

Examiner

Shaima Q. Aminzay

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: Application Filed: 02/26/2002, Foreign Priority Date: 02/28/2001.
2. Independent Claims 1, 10, 19, 26, and dependent claims 2-9, 11-18, 20-25, and 27-32 are pending in the case.
3. The present title of the application is "Mobile communication system, transmission power control method therefor, and base station used therefor".

NON-FINAL ACTION

Claim Rejections - 35 USC § 103

- ◆ The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- ◆ Claims 1, and 10, 19, and 26 are rejected under 35 U.S.C.103(a) as being unpatentable over Willenegger U. S. Publication 20020009061 A1, and in view of Toskala et al. U. S. Patent number 6650905.

4. Regarding claims 1, 10, 19, and 26, Willenegger teaches a mobile communication system (see for example, Figure 1, and paragraph [0024], lines 1-6, and [0017], lines 1-2; the mobile communication system (100)) comprising: a

base station (see for example, Figure 1, the system (100) comprising the base station (104)), and a mobile station (see for example, Figure 1, the system (100) comprising the base station (106)) having either one of or both of an individual channel set to said base station (see for example, paragraph [0034], lines 1-10 continued to [0035], lines 1-4, the system supporting more than one transport channels (DPCHs) that are set to the base station), and a shared channel set to said base station shared with other mobile stations for transmitting data from said base station (see for example, paragraph [0036], lines 1-7, the shared channel (PDSCH) assigned to user terminals set to the base station (downlink) shared with other mobile stations for data transmission from the base station), and a transmission power control device for controlling the transmission powers from said base station to said mobile stations (see for example, Figure 1, paragraph [0025], lines 4-11, the system 100 supports the system controller device (102) and transmission between the base and mobile stations, and further, Figure 3, paragraph [0019], lines 1-3, and [0039], lines 1-5 continued [0040], lines 1-3, the functional diagram of a downlink power control (Fig. 3, elements 316, 312, 314, 322, 324) maintaining power transmission control from the base station to the mobile station), and a program for making a computer execute a process for a transmission power control method for a base station of a mobile communication system (see for example, paragraph [0102], lines 1-10, using software and creating executable program, and further examples, see Figures 7 and 8 and the various processors' are shown (e.g. 712, 740, 734, 826, 830, and 842)).

However, Willenegger does not teach controlling a sum of transmission powers from said base station to said mobile stations to approximately constant.

Toskala teaches controlling a sum of transmission powers from said base station to said mobile stations to approximately constant (see for example, column 1, lines 57-60, column 3, lines 47-52, and column 5, lines 11-17, Figure 4 shows controlling a sum (block 403) of transmission powers from the base station to mobile stations and the estimated value).

It would have been obvious to one of ordinary skill in the art at the time invention was made to combine Toskala's mobile station power control (see for example, column 1, lines 10-16) with Willenegger's power transmission in multi-channels mobile communication system including dedicated physical channels (DPCH) and the high rate shared (PDSCH) channels (see for example, paragraph [0003], lines 1-5, and [0036], lines 1-7) to provide a control device and method in a mobile communication system that can save power transmission and decreases transmission errors (Toskala, see for example, column 6, lines 58-60, and column 12, lines 24-26).

5. Regarding claims 2, 11, 20, and 27, Willenegger and Toskala teach claims 1, 10, 19, 26, and further, Toskala teaches the transmission power control device maintains a sum of transmission powers considering the limits (see for example, column 1, lines 57-60, column 3, lines 47-52, and column 5, lines 11-17, Figure 4, transmission power control device and maintaining a sum (block 403) of transmission powers).

6. Regarding claims 3, 12, 21, and 28, Willenegger and Toskala teach claims 1, 10, 19, 26, and further, Willenegger teaches the transmission power control device sets the transmission power for said shared channel to said constant power when there exists no individual channel (see for example, paragraph [0049], lines 8-18, the shared channel (PDSCH) is constant and not related to the individual channel (DPCH)).
7. Regarding claims 4, 13, 22, and 29, Willenegger and Toskala teach claims 1, 10, 19, 26, and further, Willenegger teaches the transmission power for said shared channel according to an increased/decreased transmission power because of an increase/decrease of said individual channels (see for example, paragraph [0046], lines 3-9, and [0047], lines 3-7, the shared channel (PDSCH) increased/decreased transmission power is directly related to the individual channels (DPCH) increased/decreased transmission power).
8. Regarding claims 5, 14, 23, and 30, Willenegger and Toskala teach claims 1, 10, 19, 26, and further, Willenegger teaches increasing/decreasing transmission power for said shared channel by an average transmission power of the individual channels (see for example, paragraph [0045], lines 1-13, calculating the average, and [0046], lines 3-9, and [0047], lines 3-7, the shared channel (PDSCH) increased/decreased transmission power is directly related to the individual channels (DPCH)).
9. Regarding claims 8, 17, Willenegger and Toskala teach claims 1, 10, 19, 26, and further, Willenegger teaches the transmission power control device is

provided in said base station (see for example, Figure 1, paragraph [0025], lines 1-2, controller device 102, and the power controller process see Figure 3, and [0039], lines 1-5 through [0040], lines 1-3)

10. Regarding claims 9, 18, Willenegger and Toskala teach claims 1, 10, 19, 26, and further, Willenegger teaches setting information on the transmission power for said shared channel based on the reported information (see for example, paragraph [0047], lines 3-7, and [0053], lines 1-5, [0054], lines 1-13, and [0055], lines 1-4, the controller adjusts the shared channel (PDSCH) power transmission based on the reported information).

◆ Claims 6, 7, 15, 16, 24, 25, 31, and 32 are rejected under 35 U.S.C.103(a) as being unpatentable over Willenegger U. S. Publication 20020009061 A1, in view of Toskala et al. U. S. Patent number 6650905, and further in view of Laakso et al. U. S. Patent number 6603773.

11. Regarding claims 6, 7, 15, 16, 24, 25, 31, and 32, Willenegger and Toskala teach claims 1, 10, 19, and 26. However, Willenegger and Toskala do not teach power transmission larger than an upper limit decreases the transmission power for the communication channels and power transmission lower than a lower limit increases the transmission power for the communication channels.

Laakso teaches power transmission larger than an upper limit decreases the transmission power for the communication channels and power transmission

lower than a lower limit increases the transmission power for the communication channels (see for example, column 9, lines 45-62, and column 12, lines 63-67 continued to column 13, lines 1-14).

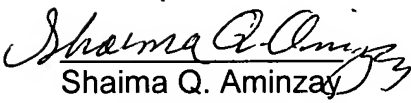
It would have been obvious to one of ordinary skill in the art at the time invention was made to combine Laakso's "controlling of transmission power with the aim of utilizing the radio interface in an efficient way" (column 1, lines 10-11) with Willenegger's power transmission in multi-channels mobile communication system (see for example, paragraph [0003], lines 1-5, and [0036], lines 1-7), and with Toskala's mobile station power control (see for example, column 1, lines 10-16) to provide a "method and a system whereby the problems related to the reception of control information can be reduced both in a macrodiversity connection and in a connection between one mobile station and one base station" and to further provide a system "does not require an unreasonable amount of signalling in between the fixed network facilities or in between base stations and mobile stations" (Laakso, column 2, lines 62-67 continued to column 3, lines 1-4).

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 form.

Inquiry

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shaima Q. Aminzay whose telephone number is 703-305-8723. The examiner can normally be reached on 7:00 AM -5:00 PM.
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600's customer service telephone number is 703-305-3900.


Shaima Q. Aminzay
(Examiner)


NAY MAUNG
SUPERVISORY PATENT EXAMINER

Nay Maung
(SPE)

Art Unit 2684

July, 06, 2004